

NOMINATION OF MARY LOWE GOOD TO BE UNDER SECRETARY OF COMMERCE FOR TECH- NOLOGY

Y 4. C 73/7:S. HRG. 103-364

Nomination of Mary Lowe Good to be...

HEARING BEFORE THE COMMITTEE ON COMMERCE, SCIENCE, AND TRANSPORTATION UNITED STATES SENATE ONE HUNDRED THIRD CONGRESS FIRST SESSION

JULY 27, 1993

Printed for the use of the Committee on Commerce, Science, and Transportation



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NOMINATION OF MARY LOWE GOOD TO BE UNDER SECRETARY OF COMMERCE FOR TECHNOLOGY

TUESDAY, JULY 27, 1993

U.S. SENATE,
COMMITTEE ON COMMERCE, SCIENCE, AND TRANSPORTATION,
Washington, DC.

The committee met, pursuant to notice, at 11:15 a.m. in room SR-253, Russell Senate Office Building, Hon. Ernest F. Hollings (chairman of the committee) presiding.

Staff members assigned to this hearing: Patrick H. Windham and Rebecca A. Kojm, professional staff members; and Louis C. Whitsett, minority counsel, and Emily J. Gallop and Susan Adams, minority professional staff members.

OPENING STATEMENT OF SENATOR HOLLINGS

The CHAIRMAN. The committee will come to order. My apologies for the delay, but we just completed four votes, as Senator Lautenberg knows. We are very pleased this morning to have the confirmation hearing of Mary Lowe Good as the Under Secretary of Commerce in charge of technology.

[The prepared statement of Senator Hollings follows:]

PREPARED STATEMENT OF SENATOR HOLLINGS

Today the Committee is holding a hearing on the important nomination of Dr. Mary Lowe Good to be Under Secretary of Commerce for Technology.

The Under Secretary is the Federal Government's main civilian technology official, and oversees, among other agencies, the National Institute of Standards and Technology. Dr. Good is an excellent choice for this job. She brings a wealth of scientific, business, and Government experience to the position of Under Secretary for Technology—a Ph.D. in chemistry; 26 years of teaching and research as a university professor; over 12 years of industry experience at Allied Signal, Inc., most recently as senior vice president for technology; and a wide range of Government advisory posts, including membership on the President's Council of Advisors on Science and Technology and 11 years on the National Science Board, including three as chair.

The President has nominated her at a crucial time, when the Nation's economic needs have now become a top priority for Federal research and development policy. If confirmed, she will play a pivotal role in reorienting research and technology programs and other Federal policies to the realities of the postcold war world.

I look forward to hearing the nominee's statement.

The CHAIRMAN. And so the others who have been waiting, I will just yield for a minute.

Senator Lautenberg.

STATEMENT OF HON. FRANK R. LAUTENBERG, U.S. SENATOR FROM NEW JERSEY

Senator LAUTENBERG. Thank you very much, Mr. Chairman. Vote we did. But as usual with dispatch as soon as possible, Mr. Chairman, you have convened and we have a wonderful prospect here in the President's nominee to be Under Secretary of Commerce for Technology, Dr. Mary Lowe Good. Her nomination is further proof that when the country needs technical know-how—and please, Mr. Chairman, forgive this parochial reference—it does look to New Jersey. It has been a tradition in our society for so many years. [Laughter.]

First with Thomas Edison and Albert Einstein. You will not be embarrassed, Dr. Good, will you? And then Einstein and then today we give you, if not the best on that list, but the Good. [Laughter.]

The CHAIRMAN. You also had Bruno Hauptman, the kidnapper of the Lindbergh baby.

Senator LAUTENBERG. Norm Schwarzkopf took care of that, Mr. Chairman. We are on the job at all times there.

Dr. Good is someone who has glowing qualities beside simply her State of residence. For 8 years she has been a senior scientist and an executive at a company, Mr. Chairman, that you and I know very well; Allied Signal, an outstanding New Jersey company with a significant presence in the wonderful State of South Carolina.

She therefore brings to Government the sensibilities and the insights of private industry, as well as her knowledge of technology and science. To her, fierce international competition is not something that she spends time reading about in policy journals; it is something that she has contended with every day.

But she is more than a business person and more than someone who understands the results of a good balance sheet. She has been a nationally renowned researcher and university professor. She has done the late nights in the laboratories where the developments take place and she knows the value of basic research and the importance of directing more of our best students to science and math and engineering.

Dr. Mary Lowe Good is also eminently qualified educationally. She has earned three degrees in chemistry in the second most important State in the Union. Now, her bachelor of science is from, Mr. Chairman, the University of Central Arkansas, and her masters and Ph.D. degrees are from the University of Arkansas. It is fair to say, homebred but grown rapidly through the decades.

Mr. Chairman, technology is crucial to rebuilding America's industrial base—and there is no more prominent spokesman than you, sir—and creating new jobs. Our future prosperity and economic leadership depend on nonstop technological innovation and the ability to transfer innovation into commercial products that the world wants to buy.

Dr. Good knows that Government can play a central role in creating an environment in which technology can flourish. Guided by a strategic technology policy, Government can direct national efforts toward critical technology; it can train citizens for high skilled technology jobs; it can foster extensive basic and applied research;

and it can and will bring together industry, workers, research institutions, and universities.

And so, Mr. Chairman, I am eager to begin working with my fellow New Jerseyan as she takes her place in the Department of Commerce because I believe, together, that all of us must and can work to make America the technological powerhouse that we once were and that the world will envy. Heaven knows, Mr. Chairman, that if there is one major asset that we possess above all nations of the world, it is the creativity of the people who inhabit our society.

The ingenuity, the development that has taken place whether it is in science, technology applied to electronics, or pharmaceutical, we are there, Mr. Chairman. One of the things that you and I have worried about is whether or not once having developed the product and developed the process, whether or not we can appropriately protect it from those who would pirate our ideas or counterfeit them and ship them back to us under different cover, but nevertheless we have to continue to create the product.

And so, Mr. Chairman, I am sorry to take so long, but I am delighted to present Dr. Mary Lowe Good to you and hope that her confirmation will take place efficiently and speedily.

The CHAIRMAN. Well, the committee is indebted to you, Senator Lautenberg. You are a business technology success. We like to see businessmen in politics and to have one who has succeeded in technology, there is no one more appropriate to present the nominee here this morning. And we are very grateful to you for your leadership, Senator Lautenberg, on the Appropriations Committee.

Secretary Good, you are going to have to be seeing him to get your money for your programs and everything else of that kind.

Senator, you can excuse yourself as you will. I know we are all backed up on commitments but you are welcome to sit with the committee if you wish. Thank you very much.

Chairman Brown. Chairman Brown, not only the chairman on the House side but the distinguished gentleman has been my chairman on the opposite technology assessment here. Chairman Brown, we welcome you to the committee.

STATEMENT OF HON. GEORGE E. BROWN, U.S. REPRESENTATIVE FROM CALIFORNIA

Mr. BROWN. Thank you, Senator. I have no parochial relations with Dr. Good. My purpose in being here this morning is to extol her virtues from a national standpoint. She is truly a national treasure. I wish I could claim a connection with California. I have not yet seen it, but we may be able to develop one.

I have had the pleasure of working with Dr. Good for more than the last decade in her functions on the National Science Board, the work she has done to help guide the National Science Foundation toward a more productive relationship between science and technology. And, in fact, one of her first appearances before my committee, now nearly 8 years ago, dealt with the problems of NIST, or the National Bureau of Standards as it was titled at that time. She gave us help through her testimony about policies related to that organization.

I have also had the pleasure of working with her on some of the national organizations in which she has been a leader. And I want to certify that she is one of the outstanding scientists and engineers in the United States, if not the world. She is a member of the National Academy of Engineering, a sort of a male-oriented organization I might say. Less than 2 percent of the membership are women, and she is a part of that 2 percent, an outstanding part I might say.

She, of course, has been a national leader in the American Chemical Society and a past president of the society. Her expertise as an academician was in chemistry and in material science, and her work in industry has been in those same fields. She is ideally equipped to help us as we try to move national policy toward a closer and more productive relationship between the Federal Government and industry. She has the ideal background to do that.

And, of course, she should prove to be one of the easiest confirmation candidates you have ever had because she has been the recipient of Presidential appointments in the last three administrations, and this will be the fourth. If she cannot make it here, I do not know where she could make it.

Thank you, Mr. Chairman.

The CHAIRMAN. Well, the committee really appreciates your coming over and presenting her. No one has more of a leadership role than Chairman Brown over on the House side for both bodies, because I follow his leadership. And George, we really appreciate it. You have been insisting on the commercialization of our technology for years now, and I think not only with this administration but particularly with Dr. Good, we have got a chance.

Mr. BROWN. Correct.

The CHAIRMAN. Thank you very much.

Congressman Ray Thornton from the great State of Arkansas, our good friend. Ray, we are glad to have you.

STATEMENT OF HON. RAY THORNTON, U.S. REPRESENTATIVE FROM ARKANSAS

Mr. THORNTON. Thank you very much, Mr. Chairman. I am honored to be here today to also join in the presentation to this committee of the excellence of the nominee for this distinguished post. She is not only a national treasure in science, but she is a wonderful family person as well. Her husband, Bill Good, is seated in the audience here. She has children and four grandchildren and knows how to put family values at the top of her agenda. Her sister, by the way, Dr. Betty Lowe, is the medical director of the Arkansas Children's Hospital, which is one of the top ranked children's hospitals in the United States. So, her family has had a tradition of excellence.

She is a great academician, serving as the highest ranked professor, Boyd Professor I believe, at LSU; being honored by more than 15 honorary doctorates for her contributions to science and to scholarship; and author of more than 100 refereed journal articles. It may seem unusual that someone with that excellent academic background would also be an outstanding public sector person, as pointed out by my colleague, George Brown. Mr. Brown, we will be

glad to include you in California, as well as New Jersey and Arkansas, as people who have a parochial interest in Dr. Good.

She has served as an appointee to the National Science Board by Jimmy Carter, and by President Reagan. President Bush appointed her head of his Council on Science and Technology Advice. So, in public policy her credentials are impeccable. And then to add to that the leadership role that she has taken in the private sector as head of research for Allied Signal is a remarkable contribution.

But what she has done is insignificant compared with what she will do in this critically important area of our economy. Harnessing America's inventive genius to the marketplace will be the key that opens the door to future economic success for our country. She comes equipped with vision and leadership and a sense of willingness to try something new which will give her great ability to succeed in this role.

Francis Bacon wrote in *Novum Organum*: "It would be unsound and contradictory to suppose that that which has never been accomplished can be accomplished except by means which have not yet been tried." The courage to try new means to harness America's intellectual competency to meet our competition in the world is a matter of great importance as you, Mr. Chairman through your leadership, have demonstrated here in the Senate. I think we are going to be well served by Dr. Mary Good in this key role for our Nation's future.

The CHAIRMAN. Well, the committee thanks you and thanks Chairman Brown.

And you got the strongest introduction I have heard in this committee. The only thing I can think of is I hope you do not run for Senator from South Carolina, because I would be gone. [Laughter.]

Ray, you and George are welcome to sit with the committee. If you have got other commitments we understand. And we apologize again for holding you up.

Dr. Good, I have had a wonderful opportunity to sit with you, and you are not only inspired, you are enthused, and we need that very very badly in the assignment that you now have taken over. We would be delighted if you could present your husband here. I heard he is present in the audience.

STATEMENT OF DR. MARY LOWE GOOD, UNDER SECRETARY-DESIGNATE FOR TECHNOLOGY, DEPARTMENT OF COMMERCE

Dr. Good. Yes, Mr. Chairman, he is here. Thank you, Mr. Chairman. I really am honored to appear before you today as President Clinton's nominee to fill the important post of Under Secretary of Commerce for Technology. I am grateful to the President for his confidence and his trust, and I look forward, if confirmed, to joining Secretary Ron Brown's able team at Commerce.

I am also grateful to you, Mr. Chairman and the other members of the committee, for considering my nomination so promptly. I realize that it was an imposition in some ways, and we do appreciate it.

I also want to thank Representatives George Brown and Ray Thornton and Senator Lautenberg for their gracious introductions. As most of you know, Senator Lautenberg has been a friend of the industry in New Jersey and to my company, Allied Signal.

I have had many interactions with Congressman Brown in my years on the National Science Board, and Congressman Thornton, as you can tell, is an old friend from my home State of Arkansas who knows my sisters and me probably better than we might like.

I have also introduced to you my husband who is here with me today. He is a physicist-turned-artist. He is really an important part of my life, having supported me through some 40 years in many of my activities and shared the upbringing of our two sons and the joy of our four grandsons.

Unfortunately our sons and daughters-in-law and grandchildren could not be here today, but on the other hand I am really not sure the Senate is ready for our 4-year-old grandson, because he would have found some way to be both seen and heard, I can assure you of that.

Mr. Chairman, I believe that two very simple questions frame the issue of my nomination for Under Secretary of Commerce for Technology. First, why is civilian technology so important in the context of the Department of Commerce's mission, and second, how can I make a difference to that objective?

Notwithstanding my academic and technical background, I will be very brief. First, I believe that civilian technology applied in the environment of total quality and a partnership between management and the workforce will be the engine of growth for the country's future in this postcold war era.

The role of the Department of Commerce and the Technology Administration is to define and guide the implementation of Government policies which enhance that environment and lay the foundation for a revitalized American economy in the global businesses of the 21st century.

The President, the Vice President, and you, Mr. Chairman and members of your committee, have articulated very well the central role of technology development and utilization in positioning the United States for global competitiveness. In addition, the administration has placed the responsibility for the leadership role in civilian technology in the Department of Commerce.

Secretary Brown is committed to a revitalization of the Department and to a new partnership with the U.S. industry. If confirmed, I will be privileged to play a vital role in this effort.

I believe we have a unique window of opportunity to define the Government's role in civilian technology and industrial competitiveness, much as the Government's role in science and defense technology was defined after World War II. In many ways, we are still operating under those 1950's directions, and it is timely to take another look, review what has been done in the past, and define a new vision.

The Government and the industry must each have a stake in working together to ensure national competitiveness, but each has to have a healthy respect for what the other can and cannot do. That, in turn, means Government has to have a healthy appreciation for the resiliency, the creativity, and the adaptability of American industry, but should not shirk from providing assistance and support for desirable activities that might not otherwise be undertaken, such as research into emerging technologies that can yield benefits for many industries, or assistance to our Nation's 360,000

small- and medium-sized manufacturers to help them understand what advanced manufacturing technologies can mean for their operations.

Unlike the large global manufacturing firms, these smaller firms have been slower to adopt advanced manufacturing systems and methods. In my view, the programs of the Department of Commerce, under the supervision of the Under Secretary of Technology, provide a solid basis for ensuring national competitiveness as that term is normally defined.

Programs such as the Advanced Technology Program allow us to leverage industry's own investment in developing high-risk technologies that can benefit many different industries and yield many different kinds of products, but through projects that are still in the precompetitive stage. As the program grows, I expect it to continue, though, to be managed in accordance with the strict merit-based standards that have characterized it since its inception. Programs such as NIST's manufacturing extension partnerships obviously reflect the importance of ensuring that small- and medium-sized manufacturers can compete in the 21st century.

I would note that my service on a number of Federal boards and commissions has included 6 years of service on what was then the National Bureau of Standards Panel for Material Science, so I know NIST first hand from the vantage of a private sector participant, and I have the utmost respect for that institution, its superb caliber, its superb cadre of scientists and engineers, and particularly its energetic new director, Dr. Arati Prabhakar.

Let me simply say that I am delighted that the strong administration and congressional support for these important new programs has been matched by strong support for NIST's basic in-house laboratory research, measurement programs, and modernization capital. If confirmed, I would strive to ensure that that balance is continued.

I am also delighted that the activities of the National Technical Information Service falls under the jurisdiction of the Technology Administration. Information is the lifeblood of competitiveness and federally funded R&D can be of enormous value, particularly as Federal agencies begin to consider more effectively the commercial ramifications of their mission-oriented research.

NTIS has made some substantial strides toward financial health, and one of my personal goals is to ensure that it is positioned to serve the R&D community that is rapidly moving from paper products to electronic means of accessing information.

But perhaps the most challenging aspect of the Under Secretary's job will be to guide the Office of Technology Policy to play a significant and appropriate role in developing and articulating the long-term strategy for the role of Government in technology development at home and technology's role in international trade.

To be effective, the policy must be a joint effort between business and Government. We must understand the complex infrastructure between large businesses and small businesses and their usual customer-supplier relationship. We must understand the role of technology at all levels of activity in both manufacturing and the service sector.

We must find, with the help of industry, those activities which enhance the overall economic climate, create new jobs, and provide for future growth. We need to evaluate past Government programs as to their effectiveness, and formulate strategies to reallocate resources to new or expanded programs that have the ingredients for success.

All programs must be partnerships, not handouts, and the context of the partnership must be customer-focused and market-driven. Both the public sector and the industry must perceive value from the partnership. That is, it must be a win-win possibility. The National Competitiveness Acts of 1993, both the Senate and the House versions, are a critical step. It will be exciting and challenging to work with you, Mr. Chairman, and members of your committee, to execute these activities and provide you with appropriate information to build on that base.

Now, to conclude, let me answer the second question—how can I make a difference toward achieving the objectives of this administration?

After 25 years of university research and teaching, about 20 years of service on several Government advisory committees, including 11 years on the National Science Board, and 13 years as a senior executive in the private sector, I have had the unique experience of being deeply involved in technology development from basic research to the development of technical professionals, to applied research and development, to commercialization of laboratory results. I understand the complexity of product development and manufacturing processes and their relationships.

In today's world, the way to describe successful businesses is to define what is meant by mind to market. I understand the need to take risks, and I have the scars of failure. There are no magic bullets, and to be competitive today requires a customer-focused mindset which puts quality and service first.

The term, "continuous improvement" is more than a slogan. If the United States is to maintain its world leadership position, this value must become a way of life for all of us, both in and out of the Government.

Finally, I am committed to the notion that the United States is the last great hope for world prosperity and a vision for the future. We are not perfect, but the wonderful experiment of diversity, individual freedom, and upward mobility is our hallmark, and we must not fail. Economic security is essential to our success.

I hope in the technology arena that I can make some contribution to that success. I am deeply honored to have been nominated by the President for this position. If confirmed, I will do my best to be worthy of that trust.

Thank you for your consideration, Mr. Chairman, of my nomination, and I would answer any questions you might have.

[The biographical data of Dr. Good follows:]

BIOGRAPHICAL DATA

Name: Good, Mary Lowe; address: 21 Oak Park Drive, Convent Station, NJ 07961; business address: Allied Signal, Inc., 101 Columbia Road, Morristown, NJ 07962-1021.

Position to which nominated: Under Secretary for Technology, Department of Commerce.

Date of birth: June 20, 1931; place of birth: Grapevine, TX.

Marital status: Married; full name of spouse: Billy J. Good; names and ages of children: Billy John Good, 40; and James Patrick Good, 35.

Education: University of Central Arkansas, 1947-50, B.S.; University of Arkansas, Fayetteville, AR, 1950-53, M.S.; and University of Arkansas, Fayetteville, AR, 1953-54, Ph.D.

Employment: 6/50-6/54, University of Arkansas, Graduate Research Assistant; 6/54-6/58, Louisiana State University, Instructor and Assistant Professor of Chemistry; 6/58-6/74, Louisiana State University, Associate Professor and Professor of Chemistry; 6/74-1/79, University of New Orleans, Boyd Professor of Chemistry; 1/79-12/80, Louisiana State University, Boyd Professor of Materials Science; 12/80-10/85, UOP, Inc., Vice President and Director of Research; 10/85-10/86, the Signal Companies, President, Signal Research Center; 10/86-10/88, Allied Signal, Inc., President of Engineered Materials Research; and 10/88-present, Allied Signal, Inc., Senior Vice President, Technology.

Government experience: 1991-93, President's Council of Advisors on Science and Technology (PCAST), National Science Board, Presidential appointment 1980-86, reappointment 1986-91; 1980-91, Vice Chairman, 1984-86, and Chairman, 1988-91, National Science Board; 1988-present, Member of Joint High Level Oversight Advisory Panel to United States-Japan Agreement on Cooperation in Research and Development in Science and Technology; 1992-present, NASA Space Systems and Technology Advisory Committee; 1986, National Research Council/National Academy of Science Panel on the Impact of National Security Controls in International Technology Transfer; 1993, Advisory Committee on the Redesign of the Space Station; and See other activities under memberships.

Political affiliations: My direct activities in political campaigns or political parties have been limited. To the best of my knowledge, my contributions have been modest (\$500 or less) and limited to the following: the Allied Signal PAC; the Jim Hunt Senate campaign in North Carolina; the George Brown congressional campaign in California; the Christie Whitman party primary campaign in New Jersey; and the National Democratic Party.

Memberships:

Zonta International, Chicago, IL, 1965-present: Chairman, Amelia Earhart Awards Committee, 1978-88; Member of International Board 1988-90; President of Zonta International Foundation 1988 to present

Chicago Network, Chicago, IL, 1983-present

Catalysis Club of Chicago, IL, 1981-present

Research Directors of Chicago, IL, 1981-present

Alpha Chi Sigma, 1975-present

Sigma Xi, 1952-present

American Institute of Chemists, Bethesda, MD, 1965-present

Industrial Research Institute, Washington, DC, 1980-present; Board of Directors 1982-87

American Chemical Society, Washington, DC, 1951-present; President 1987; Board of Directors, 1971-80; Board Chairman 1978, 1980

National Science Board, Washington, DC, Presidential Appointment 1980-86; Re-appointment 1986-92. Vice Chairman 1984-86; Chairman 1988-92

Member of the Council of the National Academy of Engineering, Washington, DC, elected 1988-present

Member of the Joint High Level Oversight Advisory Panel to the United States-Japan Agreement on Cooperation in Research and Development in Science and Technology, Washington, DC, 1988-91

National Research Council/National Academy of Science Panel on the Impact of National Security Controls in International Technology Transfer, Washington, DC

Advisory Committee, Oak Ridge National Laboratory, Knoxville, TN, 1987-90

National Research Council Commission on Physical Sciences, Mathematics, and Resources, 1986-88

Board of Directors, Oak Ridge Associated Universities, Knoxville, TN, 1971-76

Board of Trustees, Rensselaer Polytechnic Institute, Troy, NY, 1982-present

Board of Directors of the National Institute for Petroleum and Energy Research, early 1980's

National Bureau of Standards Panel for Materials Science, 1980-86

Advisory Panels: NSF Chemistry Section, 1972-76; NIH Committee on Medicinal Chemistry, 1972-76; Office of Air Force Research, 1974-78; Chemistry Division of Brookhaven and Oak Ridge National Laboratories, 1973-83; Mayor Burne's Chicago Task Force on High Technology Development; PACE Review Panel, Universities Space Research Association; Chemical Technical Technology Divi-

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sion of Oak Ridge National Laboratory; Catalysis Program, Lawrence-Berkeley Laboratory

Past External Advisory Committee: College of Engineering at Louisiana State University Review Committees for Chemistry Department Graduate Programs at: University of Texas-Austin; University of Texas-Dallas; University of California-San Diego; Harvard University

Involvement in foreign organizations:

Royal Swedish Academy on Engineering Sciences, Stockholm, Sweden, elected Foreign Member, 1990-present

Royal Society of Chemistry (British). Cambridge, The United Kingdom, 1960-present; Fellow, 1982-present

International Union of Pure and Applied Chemistry (IUPAC), President, Inorganic Division, 1980-85; Member of Bureau, 1985-93

Honors and awards: Albert Fox Demers Medal Award, Rensselaer Polytechnic Institute, 1992; National Science Foundation Distinguished Public Service Award, 1992; American Association for the Advancement of Science Award, 1992; American Association of State Colleges and Universities Distinguished Alumnus Award, 1991; ASM International (The Materials Information Society) Distinguished Life Membership Award, 1991; Industrial Research Institute Medalist Award, 1991; Charles Lathrop Parsons Award, American Chemical Society, 1991; The Tau Beta Pi Association, South Carolina Gamma Chapter Member, 1990; Delmer S. Fahrney Medal, Franklin Institute, 1988; Elected Member, National Academy of Engineering, 1987; Elected Fellow, American Association for the Advancement of Science, 1986; Gold Medal, American Institute of Chemists, 1983; Scientist of the Year, Industrial Research & Development Magazine, 1982; Garvan Medal, American Chemical Society, 1973; Florida Award, Florida Section, American Chemical Society, 1979; Herty Medal, Georgia Section, American Chemical Society, 1975; American Institute of Chemists Honor Scroll, Louisiana Chapter, 1974; Distinguished Alumnae Citation, University of Arkansas, 1973; Agnes Faye Morgan Research Award, 1969; Honorary Doctorates: University of Arkansas, 1979; University of Illinois-Chicago, 1983; Clarkson University, 1984; Eastern Michigan University, 1986; Duke University, 1987; St. Mary's College, 1987; Kenyon College, 1988; Lehigh University, 1989; New Jersey Institute of Technology, 1989; Northeastern Illinois University, 1989; Stevens Institute of Technology, 1989; University of South Carolina, 1989; Manhattan College, 1992; College of William and Mary, 1992; Polytechnic University, 1992, University of Indiana, 1993. Honorary Law Degree: Newcomb College of Tulane University, 1991; Honor Societies: Iota Sigma Pi, Phi Beta Kappa; and New Jersey Women of Achievement Award, Douglass College at Rutgers University, 1990.

Scholarly publications—Books and chapters: "Integrated Laboratory Sequence: Volume III—Separations and Analysis," Barnes and Noble, Inc., New York, NY, 1970; "Applications of Mossbauer Spectroscopy in the Study of Coordination Compounds," M.L. Good and C.A. Clausen III in ACS Monograph, Coordination Chemistry, Volume I, Edited by A.E. Martell, Reinhold Publishing Corp., 1971; and C.A. Clausen III, and M.L. Good, "Characterization of Bulk Surface Properties of Heterogeneous Ruthenium Catalysts by Mossbauer and ESCA Techniques," "Characterization of Metal and Polymer Surfaces," Vol. I. Characterization of Metal Surfaces, Lieng-Huang Lee, Ed., Academic Press, 65-102, 1977.

[A list of 113 scientific articles may be found in the committee's files.]

The CHAIRMAN. Well, very good, Dr. Good. We are going to leave the record open for questions.

Just a general observation so we will have it in the record in the proper place. We have been trying to create your office and build your programs over a 10-year period. Coming in as a southern Governor, I know about all this competitiveness. I did not want to hurt anybody from New Jersey's feelings, but we have been moving companies down out of New Jersey to South Carolina right regularly, and the most recent is Hoffman-La Roche, and we would be glad to move not only you down there but Frank Lautenberg as well. [Laughter.]

We are not bashful and we know how to attract companies. Rather than go into all of our State technical training systems and what-have-you, I want to say here that we also looked at the Federal opportunity. There it was all backed up into the Bureau of

Standards, all of this technology research, never commercialized, and we figured heavens, if we could only commercialize that we would really get us off and running and competitive in this global economic competition.

We stole a page from the agricultural boys: 100 and some years ago they instituted the regional research centers on the different land grant college campuses. They put out the experimental stations and the extension program. If I wanted to put a victory garden right here in my home in Washington I could call up the farm agent and he would be around at 8 o'clock tomorrow and give me a soil test and I could get started.

It has been the American story of international success in agriculture, and so I said, why can we not do that for small business, and particularly manufacturing extension and support for consortia like Bobby Inman's MCC computer group down there in Austin, TX, where the banks were not loaning any money or anything else.

Anyway, we did it 5 years ago, but we only did it by sneaking it on a trade bill that they had to sign, and Republican administrations refused for 3 years to fund it, and kept caterwauling even on this committee about winners and losers, winners and losers, and industrial policy, and getting into all the symbolism and not getting any results.

Now, at the end of the Bush term, President Bush did include it in his budgets, but it has been a rather arrested effort, and as your time comes for the Commerce Department's Technology Administration, we have also got the Office of Science and Technology Policy over in the White House with our friend Dr. Jack Gibbons, so the competitiveness issue is going to have to be immediately amongst the politicians up here, particularly those with the money.

I serve on the Energy and Water Development Appropriations Subcommittee, and I know what we have over there, and all you have to do is look in the morning newspaper and they have got a new \$9 billion contract over a 5-year period for a single Department of Energy laboratory, which is 10, 15 times more than you will have in your budget.

Money talks, and they are going to now commercialize everything at Sandia out there in New Mexico, and that is fine, if that is the appropriate route to take. We do not want to disband these valuable laboratories. But we need to define the respective technology roles of the Commerce, Energy, and Defense Departments, allocate money in the most effective ways to meet our postcold war needs, and then work together.

In fact, Senator Bingaman and myself worked out this particular approach, he on the defense authorization with DARPA and me with Commerce, and we had a wonderful relationship under the leadership of Craig Fields, but it was going on so well that the Bush administration got rid of him, unfortunately.

Now we are coming back and we will have your leadership, and you will have to be looking and finding out for us in the Congress and the administration the best route here and quickly clean it out.

We have got a bill, for example, S. 4. It is ready, willing, and able to be passed. It passed both Houses last year. It was conference and ready to be adopted, but since I was running for reelection the other party did not want me to say I accomplished

anything, so they kept having holds on the bill indicating extended debate.

That same bill, with the addition of Vice President Gore's super-highway of information, is now ready to go, but intramural politics are going on over here and they are attaching different amendments, in part because the administration is giving us a lot of rhetoric but not any decisions.

You folks decide over there what you want in the energy part, what you want in the defense part. Defense has got the same issue as Energy about getting into the commercialization of civilian technologies. I am on the Defense Appropriations Subcommittee and I have been gleaning out here not long ago different positions on different items between the House and Senate, and it took us 2 months to mark up that bill.

So, we looked at every little part, and all of a sudden I see \$1 billion for the commercialization of technology—never appeared before. All of a sudden they have got \$1 billion, and you at Commerce are totally underfunded, and yet they keep telling us you are going to be the leader. Dr. Good is going to take it over and lead, but if you do not have the wherewithal you will find this administration's technology program breaking out into all kinds of duplications, waste, and misguided efforts, and everything else of that kind.

So, that is the first challenge of all, and I am confident you can handle it. So, with that said, do you have any comment further?

Dr. GOOD. No, sir. I understand your comment very well. Fortunately, Dr. Gibbons is in the audience today, and he and I are old friends. I think that we can begin to do some things to move some of these things forward, and we are going to work to try to do that.

The CHAIRMAN. Well, good. I just noted he has been my leader over in the Office of Technology Assessment, and there is no one more equipped to do this job and give it direction. But this issue of agency roles and budgets really needs a decision, because we had a good conference yesterday, but then I pick up the morning paper, and the Energy Department's weapons labs get \$9 billion contracts. They have got the money. They are moving while we are talking.

Dr. GOOD. We also have to define what commercialization of these things mean.

The CHAIRMAN. Exactly. Thank you very much. We will leave that record open, but I want to close it out good.

I apologize for the attendance of the committee, but we only did it on a summary notice here to get this appointment confirmed, and what it indicates is a unanimity of approval and enthusiasm over your appointment.

Thank you very much.

[Whereupon, at 11:45 a.m., the committee adjourned.]



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